

GEORGIA INSTITUTE OF TECHNOLOGY
Engineering Experiment Station

PROJECT INITIATION

Date: 2/11/71

Project Title: Research Services for Neutron Activated Analysis
Project No.: A-1310
Project Director: Mr. Robert L. Zimmerman
Sponsor: Environmental Protection Agency, Water Quality Office
Effective: January 29, 1971 Estimated to run until: January 28, 1972
Type Agreement: Contract No. 68-01-0035 Amount: \$ 46,080.00

Reports: Monthly Progress Reports

Contact Person: Project Officer
Mr. William Donaldson
Chief, Advanced Analytical Technology Group
Southeast Water Laboratory
Environmental Protection Agency
Water Quality Office
Athens, Georgia 30601

Assigned to: Nuclear & Biological Sciences Division

COPIES TO:

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| <input type="checkbox"/> Project Director | <input type="checkbox"/> Photographic Laboratory |
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| <input type="checkbox"/> Assistant Director(s) | <input type="checkbox"/> Purchasing |
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GEORGIA INSTITUTE OF TECHNOLOGY
Engineering Experiment Station

PROJECT TERMINATION

Date July 29, 1974

PROJECT TITLE: Research Services for Neutron Activation Analysis

PROJECT NO: A-1310 (& Sub-numbers)

PROJECT DIRECTOR: Dr. M. V. Davis

SPONSOR: Environmental Protection Agency

TERMINATION EFFECTIVE: June 20, 1974

CHARGES SHOULD CLEAR ACCOUNTING BY: July 31, 1974

CLOSEOUT ITEMS REMAINING:

1. Monthly Progress #37
2. Monthly Progress #38
3. Monthly Progress #39
4. Final Invoice

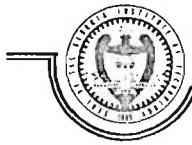
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following:*

REACTOR OPERATIONS

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GEORGIA INSTITUTE OF TECHNOLOGY

ATLANTA, GEORGIA 30332

(404) 873-4211

Nuclear and Biological
Sciences Division

March 15, 1971

Report on Project A-1310
Research Services for Neutron Activation Analysis

Contract No. 68-01-0035
Department of the Interior
Federal Water Pollution Control Administration

Expenditures for the Month

Monthly Charge		\$2,060
Additional Charges		
Personal Services	-	
Materials and Supplies	-	
Equipment	-	
Total Direct Charges	-	
Overhead	-	
Other Charges	-	
Total	-0-	
Total Expenditures for Month of February, 1971		<u>\$2,060</u>

Cumulative Expenditures for Period 2/1/71 to 3/1/71

Monthly Charges		\$2,060
Additional Charges		
Personal Services	-	
Materials and Supplies	-	
Equipment	-	
Total Direct Charges	-	
Overhead	-	
Other Charges	-	
Total	-0-	
Total Expenditures to Date		<u>\$2,060</u>
Percent Project Completion		8.33

R. L. Zimmerman
Associate Chief for Administration

RLZ:jh



April 15, 1971

Nuclear and Biological
Sciences Division

Q 365-20
NTDF

Report on Project A-1310
Research Services for Neutron Activation Analysis

Contract No. 68-01-0035
Department of the Interior
Federal Water Pollution Control Administration

Percent Project Completion 16.66%

Expenditures for the Month

Monthly Charge \$2,060.00

Additional Charges

Personal Services	\$47.08
Materials and Supplies	6.11
Equipment	0
Total Direct Charges	\$53.19
Overhead	30.25
Other Charges	0
Total	\$83.44

Total Expenditures for Month of March, 1971 \$2,143.44

Cumulative Expenditures for Period 2/1/71 to 4/1/71

Monthly Charges \$4,120.00

Additional Charges

Personal Services	\$47.08
Materials and Supplies	6.11
Equipment	0
Total Direct Charges	\$53.19
Overhead	30.25
Other Charges	0
Total	\$83.44

Total Expenditures to Date \$4,203.44

R. L. Zimmerman
Associate Chief for Administration

RLZ:jh



May 12, 1971

Nuclear and Biological
Sciences Division

Report on Project A-1310
Research Services for Neutron Activation Analysis

Contract No. 68-01-0035
Department of the Interior
Federal Water Pollution Control Administration

Percent Project Completion 25%

Expenditures for the Month

Monthly Charge		\$2,060.00
Additional Charges		
Personal Services	\$ 84.80	
Materials and Supplies	149.22	
Equipment	0.00	
Total Direct Charges	\$234.02	
Overhead	54.48	
Other Charges	25.00	
Total	\$313.50	

Total Expenditures for Month of April, 1971 \$2,373.50

Cumulative Expenditures for Period 2/1/71 to 5/1/71

Monthly Charges		\$6,180.00
Additional Charges		
Personal Services	\$131.88	
Materials and Supplies	155.33	
Equipment	0.00	
Total Direct Charges	\$287.21	
Overhead	84.73	
Other Charges	25.00	
Total	\$396.94	

Total Expenditures to Date \$6,576.94

R. L. Zimmerman
Associate Chief for Administration

RLZ: jh

Report on Project A-1310
Research Services for Neutron Activation Analysis

Contract No. 68-01-0035
Department of the Interior
Federal Water Pollution Control Administration

Percent Project Completion

50%

Expenditures for the Month

Monthly Charge		\$2,060.00
Additional Charges		
Personal Services	\$ 157.82	
Retirement	11.44	
Materials & Supplies	33.29	
Equipment	-	
Total Direct Charges	\$ 202.55	
Overhead	89.96	
Reactor Charges	200.00	
Total	\$ 492.51	

Total Expenditures for Month of July, 1971

\$2,552.51

Cumulative Expenditures for Period 2/1/71 to 8/1/71

Monthly Charges		\$12,360.00
Additional Charges		
Personal Services	\$ 643.42	
Retirement	27.81	
Materials & Supplies	208.16	
Equipment	9,414.04	
Total Direct Charges	\$10,293.43	
Overhead	366.75	
Other Charges	800.20	
Total	\$11,460.38	

Total Expenditures to Date

\$23,820.31

G. W. Leddicotte
Nuclear & Biological Sciences Division

jh

Report on Project A-1310
Research Services for Neutron Activation Analysis

Contract No. 68-01-0035
Department of the Interior
Federal Water Pollution Control Administration

Percent Project Completion

75%

Expenditures for the Month

Monthly Charge

\$ 2,060.00

Additional Charges

Personal Services	\$ 112.25
Retirement	6.73
Materials & Supplies	1.86
Equipment	0
Total Direct Charges	\$ 120.84
Overhead	63.98
Reactor Charges	550.88
Total	\$ 735.70

Total Expenditures for Month of October, 1971

\$ 2,795.70

Cumulative Expenditures for Period 2/1/71 to 11/1/71

Monthly Charges

\$18,540.00

Additional Charges

Personal Services	\$ 887.86
Retirement	49.99
Materials & Supplies	210.02
Equipment	9,414.04
Total Direct Charges	\$ 10,561.91
Overhead	506.08
Reactor Charges	2,571.08
Total	\$ 13,639.07

Total Expenditures to Date

\$32,179.07

George W. Laddicotte
Acting Director
Nuclear & Biological Sciences Division

GWL:jh

Distribution:

Dwight Allen (2)

Billy Atcheson (1)

File

Report on Project A-1310
Research Services for Neutron Activation Analysis

Contract No. 68-01-0035
Department of the Interior
Federal Water Pollution Control Administration

Percent Project Completion

83.33

Expenditures for the Month

Monthly Charge

\$ 2,060.00

Additional Charges

Personal Services	\$ 78.91
Retirement	8.59
Materials & Supplies	50.00
Equipment	0
Total Direct Charges	\$ 137.50
Overhead	44.98
Reactor Charges	520.00
Total	\$ 702.48

Total Expenditures for Month of November, 1971

\$ 2,762.48

Cumulative Expenditures for Period 2/1/71 to 12/1/71

Monthly Charges

\$ 20,600.00

Additional Charges

Personal Services	\$ 966.77
Retirement	58.58
Materials & Supplies	260.02
Equipment	9,414.04
Total Direct Charges	\$10,699.41
Overhead	551.06
Reactor Charges	3,091.08
Total	\$14,341.55

Total Expenditures to Date

\$ 34,941.50

George W. Laddicotte

Acting Director

Nuclear & Biological Sciences Division

CWL:jh

Distribution:

Dwight Allen (2)

Billy Atchison (1)

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Report on Project Number A-1310Title: Research Service for Neutron Activation AnalysisContract No: 68-01-0035Sponsor: Department of Interior
Federal Water Pollution Control AdministrationPercent Project Completion 100Expenditures for the Month (January 1972):Planned Monthly Direct Charges \$ 2,060.00** Actual Monthly Direct Charges \$ 2,077

Additional Charges	
Personal Services	\$ <u>31.57</u>
Retirement	<u>1.33</u>
Materials and Supplies	<u>34.93</u>
Equipment	<u>0</u>
Total Direct Charges	\$ <u>67.83</u>
Overhead	<u>17.99</u>
Reactor Charges	<u>—</u>
Total	\$ <u>153.65</u>

Total Expenditures for Month of January 1972 \$ 2,230.67Cumulative Expenditures for Period 1-29-71 to 1-28-72

Monthly Charges	\$ <u>25,225.51*</u>
Additional Charges	
Personal Services	\$ <u>1,015.70</u>
Retirement	<u>65.95</u>
Materials & Supplies	<u>296.71</u>
Equipment	<u>9,414.04</u>
Total Direct Charges	\$ <u>10,792.40</u>
Overhead	<u>578.95</u>
Reactor Charges	<u>3,541.08</u>
Total	\$ <u>14,912.43</u>

Total Expenditures to Date \$ 40,137.94

* This contract period ended 1-28-72.

** Based on PS and Ret in A-1310-000.

George W. Leddicotte
Nuclear & Biological Sciences Di
Department of Applied Sciences
Engineering Experiment Station

GWL:bc

Distribution: Dwight Allen (2)
Billy Atcheson (1)
File

Date: _____

Report on Project Number A-1310Title: Research Service for Neutron Activation AnalysisContract No: 68-01-0035 (Mod. #1)*Sponsor: Department of the Interior
Federal Water Pollution Control AdministrationPercent Project Completion 8.33Expenditures for the Month (February 1972):Planned Monthly Direct Charges \$ 2,060.00** Actual Monthly Direct Charges \$2,024.57**

Additional Charges	
Personal Services	\$ <u>59.89</u>
Retirement	<u>2.42</u>
Materials and Supplies	<u>64.42</u>
Equipment	<u>0</u>
Total Direct Charges	\$ <u>126.73</u>
Overhead	<u>34.14</u>
Reactor Charges	<u>250.00</u>
Total	\$ <u>410.87</u>

Total Expenditures for Month of February 1972 \$ 2,435.44Cumulative Expenditures for Period 1-29-72 to 1-28-73

Monthly Charges	\$ <u>2,024.57**</u>
Additional Charges	
Personal Services	\$ <u>59.89</u>
Retirement	<u>2.42</u>
Materials & Supplies	<u>64.42</u>
Equipment	<u>0</u>
Total Direct Charges	\$ <u>126.73</u>
Overhead	<u>34.14</u>
Reactor Charges	<u>250.00</u>
Total	\$ <u>410.87</u>

Total Expenditures to Date \$ 2,435.44

*Budget not established until 3-24-72.

**Based on PS and Ret in A-1310-000.

George W. Leddicotte
Nuclear & Biological Sciences D
Department of Applied Sciences
Engineering Experiment Station

GWL:bc

Distribution: Dwight Allen (2)
Billy Atcheson (1)
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Date: _____

Report on Project Number A-1310Title: Research Services for Neutron Activation AnalysisContract No: 68-01-0035 (Mod. #1)*Sponsor: Department of Interior
Federal Water Pollution Control AdministrationPercent Project Completion 16.67Expenditures for the Month (March 1972):Planned Monthly Direct Charges \$ 2,060.00** Actual Monthly Direct Charges \$1,769.60

Additional Charges	
Personal Services	\$ <u>385.24</u>
Retirement	<u>3.62</u>
Materials and Supplies	<u>65.11</u>
Equipment	<u>0</u>
Total Direct Charges	\$ <u>453.97</u>
Overhead	<u>219.59</u>
Reactor Charges	<u>0</u>
Total	\$ <u>673.56</u>

Total Expenditures for Month of March 1972 \$ 2,442.59Cumulative Expenditures for Period 1-29-72 to 1-28-73

Monthly Charges	\$ <u>3,793.60**</u>
Additional Charges	
Personal Services	\$ <u>445.13</u>
Retirement	<u>6.04</u>
Materials & Supplies	<u>129.53</u>
Equipment	<u>0</u>
Total Direct Charges	\$ <u>580.70</u>
Overhead	<u>253.73</u>
Reactor Charges	<u>250.00</u>
Total	\$ <u>1,084.43</u>

Total Expenditures to Date \$ 4,878.03

*Budget not established until 3-24-72.

**Based on PS and Ret in A-1310-000.

George W. Leddicotte
Nuclear & Biological Sciences D
Department of Applied Sciences
Engineering Experiment Station

GWL:bc

Distribution: Dwight Allen (2)
Billy Atcheson (1)
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Date: _____

Report on Project Number A-1310Title: Research Services for Neutron Activation AnalysisContract No: 68-01-0035 (Mod. #1)*Sponsor: Department of Interior
Federal Water Quality AdministrationPercent Project Completion 25.0Expenditures for the Month (April 1972):Planned Monthly Direct Charges \$ 2,060.00** Actual Monthly Direct Charges \$ 1,810.00

Additional Charges

Personal Services	\$ <u>407.97</u>
Retirement	<u>29.47</u>
Materials and Supplies	<u>32.72</u>
Equipment	<u>0</u>
Total Direct Charges	\$ <u>470.16</u>
Overhead	<u>232.54</u>
Reactor Charges	<u>0</u>
Total	\$ <u>702.70</u>

Total Expenditures for Month of April 1972 \$ 2,513.64Cumulative Expenditures for Period 1-29-72 to 1-28-73

Monthly Charges

\$ 5,604.56

Additional Charges

Personal Services	\$ <u>853.10</u>
Retirement	<u>35.51</u>
Materials & Supplies	<u>162.25</u>
Equipment	<u>0</u>
Total Direct Charges	\$ <u>1,050.86</u>
Overhead	<u>486.27</u>
Reactor Charges	<u>250.00</u>
Total	\$ <u>1,787.13</u>

Total Expenditures to Date \$ 7,391.69

*Monies from contract extension available 3-24-72.

**Based on PS and Ret in A-1310-000.

George W. Leddicotte
Nuclear & Biological Sciences D.
Department of Applied Sciences
Engineering Experiment Station

GWL:bc

Distribution: Dwight Allen (2)
Billy Atcheson (1)
File

Date: _____

Report on Project Number A-1310Title: Research Services for Neutron Activation AnalysisContract No: 68-01-0035 (Mod. #1)Sponsor: Department of InteriorFederal Water Quality AdministrationPercent Project Completion 33.3%Expenditures for the Month (May 1972):Planned Monthly Direct Charges \$ 2,060.00* Actual Monthly Direct Charges \$1,294

Additional Charges	
Personal Services	\$ <u>975.46^(a)</u>
Retirement	<u>31.21</u>
Materials and Supplies	<u>140.61</u>
Equipment	<u>0</u>
Total Direct Charges	\$ <u>1,147.28</u>
Overhead	<u>556.01</u>
Reactor Charges	<u>0</u>
Total	\$ <u>1,703.29^(a)</u>

Total Expenditures for Month of May 1972 \$ 2,997.49Cumulative Expenditures for Period 1-29-72 to 1-28-73

Monthly Charges	\$ <u>6,898.76</u>
Additional Charges	
Personal Services	\$ <u>1,828.56^(a)</u>
Retirement	<u>66.72</u>
Materials & Supplies	<u>302.86</u>
Equipment	<u>0</u>
Total Direct Charges	\$ <u>2,198.14</u>
Overhead	<u>1,042.28</u>
Reactor Charges	<u>250.00</u>
Total	\$ <u>3,490.42^(a)</u>

Total Expenditures to Date \$ 10,389.18

*Based on PS and Ret in A-1310-000.

(a) Correction for incorrect PS accounting in A-1310-001 being made.

George W. Leddicotte
Nuclear & Biological Sciences D
Department of Applied Sciences
Engineering Experiment Station

GWL:bc

Distribution: Dwight Allen (2)
Billy Atcheson (1)
File

Date: _____

Report on Project Number A-1310Title: Research Services for Neutron Activation AnalysisContract No: 68-01-0035Sponsor: Department of the Interior
Federal Water Pollution Control AdministrationPercent Project Completion 41.65

Expenditures for the Month (June 1972):

Planned Monthly Direct Charges \$ 2,060.00* Actual Monthly Direct Charges \$ 1,74

Additional Charges	
Personal Services	\$ <u>297.36</u>
Retirement	<u>74.62</u>
Materials and Supplies	<u>2.00</u>
Equipment	<u>0</u>
Total Direct Charges	\$ <u>373.98</u>
Overhead	<u>169.50</u>
Reactor Charges	<u>625.00</u>
Total	\$ <u>1,168.48</u>

Total Expenditures for Month of June 1972 \$ 2,918.31Cumulative Expenditures for Period _____ to 6-30-72

Monthly Charges		\$ <u>8,648.59</u>
Additional Charges		
Personal Services	\$ <u>2,125.92</u>	
Retirement	<u>141.34</u>	
Materials & Supplies	<u>304.86</u>	
Equipment	<u>—</u>	
Total Direct Charges	\$ <u>2,572.12</u>	
Overhead	<u>1,211.78</u>	
Reactor Charges	<u>875.00</u>	
Total	\$ <u>4,658.90</u>	

Total Expenditures to Date \$ 13,307.49

*Based on PS and Ret in A-1310-000.

(a) Correction for incorrect PS accounting in A-1310-001 being made.

George W. Leddicotte
Nuclear & Biological Sciences D
Department of Applied Sciences
Engineering Experiment Station

GWL:bc

Distribution: Dwight Allen (2)
Billy Atcheson (1)
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Date: 7-20-72

Report on Project Number A-1310Title: Research Services For Neutron Activation AnalysisContract No: 68-01-0035Sponsor: Department of Interior

Percent Project Completion

58.33

Expenditures for the Month (August 1972):

Planned Monthly Direct Charges \$ 2,060.00 Actual Monthly Direct Charges \$ 3328.

Additional Charges

Personal Services	\$ (408.71)
Retirement	32.53
Materials and Supplies	75.17
Equipment	0.00
Total Direct Charges	\$ (301.01)
Overhead	(232.96)
Reactor Charges	475.00
Total	\$ (58.97)

Total Expenditures for Month of August 1972\$ 3,269.19Cumulative Expenditures for Period 1-29-72 to 1-28-73

Monthly Charges

\$ 14,217.85

Additional Charges

Personal Services	\$ 2,136.91
Retirement	194.20
Materials & Supplies	374.41
Equipment	0.00
Total Direct Charges	\$ 2,705.52
Overhead	1,218.05
Reactor Charges	2,250.00
Total	\$ 6,173.57

Total Expenditures to Date

\$ 20,391.42

RSK/nsm

Distribution: Dwight Allen (2)
Billy Atcheson (1)
George Leddicotte (1)
File

Robert S. Kirkland/
Nuclear & Biological Sciences D
Department of Applied Sciences
Engineering Experiment Station

Date: September 26, 1972

Report on Project Number A-1310Title: Research Services For Neutron Activation AnalysisContract No: 68-01-0035Sponsor: Department of InteriorPercent Project Completion 66.66 %

Expenditures for the Month (September 1972):

Planned Monthly Direct Charges \$ 2,060.00 Actual Monthly Direct Charges \$ 2,391.17

Additional Charges

Personal Services	\$ <u>332.51</u>
Retirement	<u>(31.52)</u>
Materials and Supplies	<u>108.16</u>
Equipment	<u>0.00</u>
Total Direct Charges	\$ <u>409.15</u>
Overhead	<u>189.53</u>
Reactor Charges	<u>445.00</u>
Total	\$ <u>1,043.68</u>

Total Expenditures for Month of September 1972 \$ 3,434.85Cumulative Expenditures for Period 1-29-72 to 1-28-73

Monthly Charges

\$ 16,609.02

Additional Charges

Personal Services	\$ <u>2,469.42</u>
Retirement	<u>162.68</u>
Materials & Supplies	<u>482.57</u>
Equipment	<u>0.00</u>
Total Direct Charges	\$ <u>3,114.67</u>
Overhead	<u>1,407.58</u>
Reactor Charges	<u>2,695.00</u>
Total	\$ <u>7,217.25</u>

Total Expenditures to Date \$ 23,826.27

Robert S. Kirkland
Nuclear & Biological Sciences Div.
Department of Applied Sciences
Engineering Experiment Station

RSK/nsm

Distribution: Dwight Allen (2)
Billy Atcheson (1)
George Leddicotte (1)
File

Date: October 10, 1972

Report on Project Number A-1310Title: Research Services for Neutron Activation AnalysisContract No: 68-01-0035Sponsor: Department of Interior

Percent Project Completion

50 %Expenditures for the Month (July, 1973):Planned Monthly Direct Charges \$ 2,060.00 Actual Monthly Direct Charges \$ 2139.59

Additional Charges

Personal Services	\$ 52.16
Retirement	6.53
Materials and Supplies	62.38
Equipment	-0-
Total Direct Charges	\$ 121.07
Overhead	29.73
Reactor Charges	107.80
Total	\$ 258.60

Total Expenditures for Month of July, 1973 \$ 2398.19Cumulative Expenditures for Period 1-29-73 to 1-28-74

Monthly Charges

\$ 11,173.45

Additional Charges

Personal Services	\$ 2334.16
Retirement	213.21
Materials & Supplies	(4291.01)
Equipment	-0-
Total Direct Charges	\$ (1743.64)
Overhead	1330.47
Reactor Charges	3475.80
Total	\$ 3062.63

Total Expenditures to Date \$ 14,236.08

Robert S. Kirkland
Nuclear Research Center
Department of Applied Sciences
Engineering Experiment Station

RSK/bc

Distribution: Dwight Allen (2)
Billy Atcheson (1)
Monte V. Davis (1)

Date: August 15, 1973